

ENVIRONMENTAL MONITORING REPORT

Project	REDI IRON ORE MINE
Location	Redi Village Vengurla Taluka, Sindudurg Dist Maharashtra
Client	MINERALS AND METALS
Office Address	P. O. Redi, Tal Vengurla, Sindhudurga 416517, Maharashtra (India)
Monitoring Month	December -2025

ENVIRONMENTAL LABORATORY **(Unit of Mineral Engineering Services LLP)**

Recognised by MoEF&CC Under E(P) Act 1986

&

Accredited by NABL

#948, 2nd Cross, Kammanahalli Main Road,

St Thomas Town Post,

Bangalore- 560 084, Karnataka

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ENVIRONMENTAL LABORATORY

(UNIT OF MINERAL ENGINEERING SERVICES LLP)

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TEST REPORT

Table No. 1

AMBIENT AIR QUALITY

Name of the Client	: M/s. Minerals and Metals
Name of the Project	: Redi Iron Ore Mine
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)
Code & Station	: A1 - Core zone Within ML Area
Duration	: 24 Hrs
Issue Date	: 03.01.2026
Sampling & Test Method	: IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Ammonia (NH ₃), µg/m ³	Benzene (C ₆ H ₆), µg/m ³
03.12.2025	N004525121	11	15	53	28	<20	<1
04.12.2025	N007625121	9	12	50	26	<20	<1
12.12.2025	N031325122	7	9	58	30	<20	<1
13.12.2025	N00532523	10	13	45	24	<20	<1
15.12.2025	N00982523	12	18	54	28	<20	<1
16.12.2025	N01512523	9	13	47	25	<20	<1
26.12.2025	N032125124	7	9	43	22	<20	<1
27.12.2025	N004425125	12	15	50	28	<20	<1
NAAQS Limits for Industrial, Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	400 24 Hrs	5 Annual

Date of Sampling	Report No	Lead (Pb), µg/m ³	Nickel (Ni), ng/m ³	Arsenic (As), ng/m ³	Benzo(a) Pyrene (BaP), ng/m ³	Carbon Monoxide* (CO), mg/m ³	Ozone* (O ₃), µg/m ³
03.12.2025	N004525121	0.21	<0.1	<0.5	<0.5	0.42	25
04.12.2025	N007625121	0.15	<0.1	<0.5	<0.5	0.22	23
12.12.2025	N031325122	0.25	<0.1	<0.5	<0.5	0.45	28
13.12.2025	N00532523	0.17	<0.1	<0.5	<0.5	0.33	26
15.12.2025	N00982523	0.28	<0.1	<0.5	<0.5	0.43	25
16.12.2025	N01512523	0.21	<0.1	<0.5	<0.5	0.36	20
26.12.2025	N032125124	0.18	<0.1	<0.5	<0.5	0.26	25
27.12.2025	N004425125	0.15	<0.1	<0.5	<0.5	0.32	22
NAAQS Limits for Industrial, Residential, Rural and other Areas		1.0 24 Hrs	20 Annual	6 Annual	1 Annual	4 1 Hr	180 1 Hr

Note : * Parameters monitored for period of 1 hr

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Table No. 2

AMBIENT AIR QUALITY

Name of the Client	: M/s. Minerals and Metals
Name of the Project	: Redi Iron Ore Mine
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)
Code & Station	: A2 - Redi village (Within 200m from the ML Area)
Duration	: 24 Hrs
Issue Date	: 03.01.2026
Sampling & Test Method	: IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Ammonia (NH ₃), µg/m ³	Benzene (C ₆ H ₆), µg/m ³
03.12.2025	N004225121	13	18	50	29	<20	<1
04.12.2025	N007325121	8	13	41	20	<20	<1
12.12.2025	N030825122	11	15	45	23	<20	<1
13.12.2025	N00482523	9	12	51	28	<20	<1
15.12.2025	N00952523	7	14	47	26	<20	<1
16.12.2025	N01482523	12	16	43	25	<20	<1
26.12.2025	N031625124	9	14	53	27	<20	<1
27.12.2025	N003925125	9	11	55	30	<20	<1
NAAQS Limits for Industrial, Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	400 24 Hrs	5 Annual

Date of Sampling	Report No	Lead (Pb), µg/m ³	Nickel (Ni), ng/m ³	Arsenic (As), ng/m ³	Benzo(a) Pyrene (BaP), ng/m ³	Carbon Monoxide* (CO), mg/m ³	Ozone* (O ₃), µg/m ³
03.12.2025	N004225121	0.22	<0.1	<0.5	<0.5	0.32	25
04.12.2025	N007325121	0.18	<0.1	<0.5	<0.5	0.22	28
12.12.2025	N030825122	0.13	<0.1	<0.5	<0.5	0.25	30
13.12.2025	N00482523	0.11	<0.1	<0.5	<0.5	0.26	23
15.12.2025	N00952523	0.24	<0.1	<0.5	<0.5	0.25	21
16.12.2025	N01482523	0.15	<0.1	<0.5	<0.5	0.33	24
26.12.2025	N031625124	0.18	<0.1	<0.5	<0.5	0.29	20
27.12.2025	N003925125	0.13	<0.1	<0.5	<0.5	0.26	26
NAAQS Limits for Industrial, Residential, Rural and other Areas		1.0 24 Hrs	20 Annual	6 Annual	1 Annual	4 1 Hr	180 1 Hr

Note : * Parameters monitored for period of 1 hr

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TEST REPORT

Table No.3

AMBIENT AIR QUALITY

Name of the Client	: M/s. Minerals and Metals
Name of the Project	: Redi Iron Ore Mine
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)
Code & Station	: A3 - Gaontala village
Duration	: 24 Hrs
Issue Date	: 03.01.2026
Sampling & Test Method	: IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Ammonia (NH ₃), µg/m ³	Benzene (C ₆ H ₆), µg/m ³
03.12.2025	N004425121	8	9	40	21	<20	<1
04.12.2025	N007525121	10	13	47	26	<20	<1
12.12.2025	N031025122	9	11	51	27	<20	<1
13.12.2025	N00502523	12	15	55	32	<20	<1
15.12.2025	N00972523	10	12	47	27	<20	<1
16.12.2025	N01502523	9	10	50	29	<20	<1
26.12.2025	N031825124	12	18	43	24	<20	<1
27.12.2025	N004125125	7	9	53	27	<20	<1
NAAQS Limits for Industrial, Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	400 24 Hrs	5 Annual

Date of Sampling	Report No	Lead (Pb), µg/m ³	Nickel (Ni), ng/m ³	Arsenic (As), ng/m ³	Benzo(a) Pyrene (BaP), ng/m ³	Carbon Monoxide* (CO), mg/m ³	Ozone* (O ₃), µg/m ³
03.12.2025	N004425121	0.13	<0.1	<0.5	<0.5	0.42	25
04.12.2025	N007525121	0.21	<0.1	<0.5	<0.5	0.25	27
12.12.2025	N031025122	0.25	<0.1	<0.5	<0.5	0.32	23
13.12.2025	N00502523	0.15	<0.1	<0.5	<0.5	0.25	32
15.12.2025	N00972523	0.23	<0.1	<0.5	<0.5	0.42	25
16.12.2025	N01502523	0.11	<0.1	<0.5	<0.5	0.22	20
26.12.2025	N031825124	0.15	<0.1	<0.5	<0.5	0.26	23
27.12.2025	N004125125	0.18	<0.1	<0.5	<0.5	0.35	28
NAAQS Limits for Industrial, Residential, Rural and other Areas		1.0 24 Hrs	20 Annual	6 Annual	1 Annual	4 1 Hr	180 1 Hr

Note : * Parameters monitored for period of 1 hr

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Table No. 4

AMBIENT AIR QUALITY

Name of the Client	: M/s. Minerals and Metals
Name of the Project	: Redi Iron Ore Mine
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)
Code & Station	: A4 - Kanyalwadi village
Duration	: 24 Hrs
Issue Date	: 03.01.2026
Sampling & Test Method	: IS 5182 & Lab SOP

Date of Sampling	Report No	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Ammonia (NH ₃), µg/m ³	Benzene (C ₆ H ₆), µg/m ³
05.12.2025	N016625121	12	15	48	25	<20	<1
06.12.2025	N008525122	11	18	57	30	<20	<1
08.12.2025	N015125122	9	11	53	28	<20	<1
09.12.2025	N022025122	10	13	40	25	<20	<1
17.12.2025	N01782523	7	9	48	27	<20	<1
18.12.2025	N01972523	10	12	54	29	<20	<1
24.12.2025	N020825124	9	11	45	26	<20	<1
25.12.2025	N025425124	12	15	51	27	<20	<1
NAAQs Limits for Industrial, Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	400 24 Hrs	5 Annual

Date of Sampling	Report No	Lead (Pb), µg/m ³	Nickel (Ni), ng/m ³	Arsenic (As), ng/m ³	Benzo(a) Pyrene (BaP), ng/m ³	Carbon Monoxide* (CO), mg/m ³	Ozone* (O ₃), µg/m ³
05.12.2025	N016625121	0.13	<0.1	<0.5	<0.5	0.25	22
06.12.2025	N008525122	0.21	<0.1	<0.5	<0.5	0.45	27
08.12.2025	N015125122	0.18	<0.1	<0.5	<0.5	0.36	24
09.12.2025	N022025122	0.11	<0.1	<0.5	<0.5	0.25	20
17.12.2025	N01782523	0.15	<0.1	<0.5	<0.5	0.31	21
18.12.2025	N01972523	0.24	<0.1	<0.5	<0.5	0.40	27
24.12.2025	N020825124	0.19	<0.1	<0.5	<0.5	0.28	22
25.12.2025	N025425124	0.27	<0.1	<0.5	<0.5	0.37	20
NAAQS Limits for Industrial, Residential, Rural and other Areas		1.0 24 Hrs	20 Annual	6 Annual	1 Annual	4 1 Hr	180 1 Hr

Note : * Parameters monitored for period of 1 hr

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TEST REPORT

Table No. 5

AMBIENT AIR QUALITY

Name of the Client	: M/s. Minerals and Metals
Name of the Project	: Redi Iron Ore Mine
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)
Code & Station	: A5 - Shiroda village
Duration	: 24 Hrs
Issue Date	: 03.01.2026
Sampling & Test Method : IS 5182 & Lab SOP	

Date of Sampling	Report No	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)	Ammonia (NH ₃), µg/m ³	Benzene (C ₆ H ₆), µg/m ³
03.12.2025	N004325121	10	12	42	23	<20	<1
04.12.2025	N007425121	9	18	50	26	<20	<1
12.12.2025	N030925122	11	16	46	23	<20	<1
13.12.2025	N00492523	7	9	54	27	<20	<1
15.12.2025	N00962523	11	12	36	23	<20	<1
16.12.2025	N01492523	9	10	42	18	<20	<1
26.12.2025	N031725124	10	14	50	17	<20	<1
27.12.2025	N004025125	11	16	45	24	<20	<1
NAAQs Limits for Industrial, Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs	400 24 Hrs	5 Annual

Date of Sampling	Report No	Lead (Pb), µg/m ³	Nickel (Ni), ng/m ³	Arsenic (As), ng/m ³	Benzo(a) Pyrene (BaP), ng/m ³	Carbon Monoxide* (CO), mg/m ³	Ozone* (O ₃), µg/m ³
03.12.2025	N004325121	0.11	<0.1	<0.5	<0.5	0.31	21
04.12.2025	N007425121	0.31	<0.1	<0.5	<0.5	0.27	20
12.12.2025	N030925122	0.25	<0.1	<0.5	<0.5	0.21	28
13.12.2025	N00492523	0.14	<0.1	<0.5	<0.5	0.25	24
15.12.2025	N00962523	0.24	<0.1	<0.5	<0.5	0.28	28
16.12.2025	N01492523	0.16	<0.1	<0.5	<0.5	0.38	20
26.12.2025	N031725124	0.11	<0.1	<0.5	<0.5	0.32	23
27.12.2025	N004025125	0.19	<0.1	<0.5	<0.5	0.25	20
NAAQS Limits for Industrial, Residential, Rural and other Areas		1.0 24 Hrs	20 Annual	6 Annual	1 Annual	4 1 Hr	180 1 Hr

Note : * Parameters monitored for period of 1 hr

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TEST REPORT

Table No. 6

AMBIENT AIR QUALITY

Name of the Client : M/s. Minerals and Metals					
Name of the Project : Redi Iron Ore Mine					
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)					
Code & Station : A6 - Near NIMCO Gate - Tivrewadi, Redi village					
Duration : 24 Hrs					
Issue Date : 03.01.2026					
Sampling & Test Method : IS 5182 & Lab SOP					
Date of Sampling	Report No	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)
05.12.2025	N016725121	11	14	50	26
06.12.2025	N008625122	13	18	55	30
08.12.2025	N015225122	10	12	48	25
09.12.2025	N022125122	7	10	43	20
17.12.2025	N01792523	11	13	58	30
18.12.2025	N01982523	9	12	54	26
24.12.2025	N020925124	7	9	47	23
25.12.2025	N025525124	7	11	50	25
NAAQS Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs

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TEST REPORT

Table No. 7

AMBIENT AIR QUALITY

Name of the Client : M/s. Minerals and Metals					
Name of the Project : Redi Iron Ore Mine					
Sample Collected by : Environmental Laboratory (Unit of Mineral Engineering Services LLP)					
Code & Station : A7 - Near Primary School - sakalhatwadi Redi village					
Duration : 24 Hrs					
Issue Date : 03.01.2026					
Sampling & Test Method : IS 5182 & Lab SOP					
Date of Sampling	Report No	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	PM ₁₀ , (µg/m ³)	PM _{2.5} , (µg/m ³)
05.12.2025	N016825121	10	14	43	24
06.12.2025	N008725122	9	12	53	26
08.12.2025	N015325122	10	13	48	25
09.12.2025	N022225122	9	11	40	23
17.12.2025	N01802523	7	9	50	27
18.12.2025	N01992523	11	13	52	26
24.12.2025	N021025124	7	9	45	23
25.12.2025	N025625124	9	11	48	20
NAAQS Limits for Industrial , Residential, Rural and other Areas		80 24 Hrs	80 24 Hrs	100 24 Hrs	60 24 Hrs

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Table No. 8

Fugitive Emission

Name of the Client		: M/s. Minerals and Metals					
Name of the Project		: Redi Iron Ore Mine					
Sample Collected by		: Environmental Laboratory (Unit of Mineral Engineering Services LLP)					
Duration		: 08 Hrs					
Issue Date		: 03.01.2026					
Code & Station	Date of sample	Report No	Sulphur Dioxide (SO ₂), µg/m ³	Nitrogen Dioxide (NO ₂), µg/m ³	PM ₁₀ (µg/m ³)	SPM (µg/m ³)	Carbon Monoxide* (CO), mg/m ³
FA1- Unloading Point	15.12.2025	N00992523	7	9	145	230	0.45
	26.12.2025	N032225124	11	15	132	210	0.33
FA2 - Haulage Road	15.12.2025	N01002523	12	18	193	316	0.35
	26.12.2025	N032325124	10	16	135	208	0.41
FA3 - Loading Area	16.12.2025	N01522523	7	9	112	187	0.30
	27.12.2025	N004525125	9	13	122	210	0.25
Within in Mining Area Pollutant			SO ₂	NO ₂	RPM (PM ₁₀)	SPM (PM)	CO
Concentration in Ambient Air			120	120	250	500	4
Time Weighted Average			24 Hrs	24 Hrs	24 Hrs	24 Hrs	1 Hr
Note : * Parameters monitored for period of 1 hr							

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TEST REPORT

Table No. 9

STATISTICAL AIR QUALITY DATA

Name of the Client : M/s. Minerals and Metals												
Name of the Project : Redi Iron Ore Mine												
Month : December, 2025												
Code & Station	A1 - Core zone Within ML Area				A2 - Redi village (Within 200m from the ML Area)				A3 - Gaontala village			
	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}
Min.	7	9	43	22	7	11	41	20	7	9	40	21
10%	7	9	44	23	8	12	42	22	8	9	42	23
25%	9	11	47	25	9	13	45	25	9	10	46	26
50%	10	13	50	27	9	14	49	27	10	12	49	27
75%	11	15	53	28	11	15	52	28	11	14	52	28
98%	12	18	57	30	13	18	55	30	12	18	55	32
Max.	12	18	58	30	13	18	55	30	12	18	55	32
Avg.	10	13	50	26	10	14	48	26	10	12	48	27
SD	2	3	5	3	2	2	5	3	2	3	5	3
No. of obs	8				8				8			
Code & Station	A4 - Kanyalwadi village				A5 - Shiroda village							
	SO ₂	NO ₂	PM ₁₀	PM _{2.5}	SO ₂	NO ₂	PM ₁₀	PM _{2.5}				
Min.	7	9	40	25	7	9	36	17				
10%	8	10	44	25	8	10	40	18				
25%	9	11	47	26	9	12	42	22				
50%	10	13	50	27	10	13	46	23				
75%	11	15	53	28	11	16	50	25				
98%	12	18	57	30	11	18	53	27				
Max.	12	18	57	30	11	18	54	27				
Avg.	10	13	50	27	10	13	46	23				
SD	2	3	5	2	1	3	6	4				
No. of obs	8				8							

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TEST REPORT

Table No. 10

Name of the Client	: M/s. Minerals and Metals
Name of the Project	: Redi Iron Ore Mine
Location	: Redi village, Vengurla taluka, Sindhudurg dist, Maharashtra
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)
Nature of Sample	: Surface Water
Sample Location	: W1 - Pit water
Date of sample collection	: 11.12.2025
Date of sample receipt	: 12.12.2025
Report No	: M007325122
Issue Date	: 03.01.2026
Ref	: Environmental (P) Rules, 1986 SCHEDULE VI

Sl. No.	Parameters	Sample Code	Standards For Effluent Discharge of Environmental Pollutants	Method of Testing
		W1		
		Results		
1	Colour (Hazen Units), & Odour	3	—	IS:3025 (part-4)
2	Suspended Solids (mg/l), Max	16	100	IS 3025 (P-17) 2022
3	Particle size of suspended solids	Pass through 850 micron	Shall Pass through 850 micron	APHA 23rd edition
4	pH	5.80	5.5 to 9.0	IS 3025 (P-11) 2022
5	Temperature °C	25	Shall not exceed 5° C above the receiving water temp	IS 3025 (Part 9) 2023
6	Oil & Grase (mg/l), Max	<4.0	10	IS 3025 (P-39) 2021
7	Total Residual Chlorine (mg/l), Max	<0.1	1.0	IS 3025 (P-26) 2021
8	Ammonical Nitrogen (mg/l), Max	<0.1	50	IS 3025 (P-34 Sec 1) 2023
9	Total Kjeldahl Nitrogen (mg/l), Max	<0.1	100	IS 3025 (P-34 Sec 1) 2023
10	Free Ammonia as NH ₃ (mg/l), Max	<0.01	5.0	IS 3025 (P-34 Sec 1) 2023
11	BOD [3 days at 27°C] (mg/l), Max	<3.0	30	IS 3025 (Part 44) 2023
12	COD (mg/l), Max	15	250	IS 3025 (Part 56) 2023
13	Arsenic as As (mg/l), Max	<0.05	0.2	APHA 24th Ed.Method No.3030K
14	Mercury as Hg (mg/l), Max	<0.001	0.01	APHA 24th Ed.Method No.3030K
15	Lead as Pb (mg/l), Max	<0.05	0.1	APHA 24th Ed.Method No.3030K
16	Cadmium as Cd (mg/l), Max	<0.01	2.0	APHA 24th Ed.Method No.3030K
17	Hexavalent Chromium as Cr ⁺⁶ (mg/l), Max	<0.03	0.1	IS 3025 (P-52) 2014
18	Total Chromium as Cr(mg/l), Max	<0.01	2.0	APHA 24th Ed.Method No.3030K
19	Copper as Cu (mg/l), Max	<0.05	3.0	APHA 24th Ed.Method No.3030K
20	Zinc as Zn (mg/l), Max	<0.05	5.0	APHA 24th Ed.Method No.3030K
21	Selenium as Se (mg/l), Max	<0.05	0.05	APHA 24th Ed.Method No.3030K
22	Nickel as Ni (mg/l), Max	<0.05	3.0	APHA 24th Ed.Method No.3030K
23	Cyanide as CN (mg/l), Max	<0.01	0.2	IS 3025 (P-27) Sec 1 2021
24	Fluoride as F (mg/l), Max	<0.1	2.0	APHA 24th Edition 4500F
25	Dissolved Phosphates as PO ₄ (mg/l), Max	<0.1	5.0	IS 3025 (P-31) Sec 1 2022
26	Sulphide as S (mg/l), Max	<0.01	2.0	IS 3025 (P-29) 2022
27	Phenolic Compounds as C ₆ H ₅ OH (mg/l), Max	<0.001	1.0	IS 3025 (P-43) Sec 1 2022
28	Manganese as Mn (mg/l), Max	<0.01	2	APHA 24th Ed.Method No.3030K
29	Iron as Fe (mg/l), Max	<0.05	3	APHA 24th Ed.Method No.3030K
30	Vanadium as V (mg/l), Max	<0.01	0.2	APHA 24th Ed.Method No.3030K
31	Nitrate Nitrogen (mg/l), Max	1.8	10	IS 3025 (P-34) 1988 RA 2019

END OF REPORT

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TEST REPORT

Table No. 11

Name of the Client		: M/s. Minerals and Metals		
Name of the Project		: Redd Iron Ore Mine		
Location		: Redd village, Vengurla taluka, Sindhudurg dist, Maharashtra State.		
Particulars of sample collected		: W2 - Pit Discharge water, W3 - Runoff water from dump		
Sample Collected by		: Environmental Laboratory (Unit of Mineral Engineering Services LLP)		
Date of sample collection		: 11.12.2025		
Date of sample receipt		: 12.12.2025		
Issue Date		: 03.01.2026		
Ref		: Environmental (P) Rules, 1986 SCHEDULE VI		
Report No		M007425122	-	
Sample code		W2	W3	
Sl. No.	Parameters	Results	Standards For Effluent Discharge of Environmental Pollutants	Method of Testing
1	Colour (Hazen Units), & Odour	3	—	IS:3025 (part-4)
2	Suspended Solids (mg/l), Max	15	100	IS 3025 (P-17) 2022
3	Particle size of suspended solids	Pass through 850 micron	Shall Pass through 850 micron	APHA 23rd edition
4	pH	5.75	5.5 to 9.0	IS 3025 (P-11) 2022
5	Temperature °C	25	Shall not exceed 5°C above the receiving water	IS 3025 (Part 9) 2023
6	Oil & Grease (mg/l), Max	<4.0	10	IS 3025 (P-29) 2021
7	Total Residual Chlorine (mg/l), Max	<0.1	1.0	IS 3025 (P-26) 2021
8	Ammonical Nitrogen (mg/l), Max	<0.1	50	IS 3025 (P-34 Sec 1) 2023
9	Total Kjeldahl Nitrogen (mg/l), Max	<0.1	100	IS 3025 (P-34 Sec 1) 2023
10	Free Ammonia as NH ₃ (mg/l), Max	<0.01	5.0	IS 3025 (P-34 Sec 1) 2023
11	BOD [3 days at 27°C] (mg/l), Max	<3.0	30	IS 3025 (Part 44) 2023
12	COD (mg/l), Max	22	250	IS 3025 (Part 56) 2023
13	Arsenic as As (mg/l), Max	<0.05	0.2	APHA 24th Ed.Method No.3030K
14	Mercury as Hg (mg/l), Max	<0.001	0.01	APHA 24th Ed.Method No.3030K
15	Lead as Pb (mg/l), Max	<0.05	0.1	APHA 24th Ed.Method No.3030K
16	Cadmium as Cd (mg/l), Max	<0.01	2.0	APHA 24th Ed.Method No.3030K
17	Hexavalent Chromium as Cr ⁶⁺ (mg/l), Max	<0.03	0.1	IS 3025 (P-52) 2014
18	Total Chromium as Cr (mg/l), Max	<0.01	2.0	APHA 24th Ed.Method No.3030K
19	Copper as Cu (mg/l), Max	<0.05	3.0	APHA 24th Ed.Method No.3030K
20	Zinc as Zn (mg/l), Max	<0.05	5.0	APHA 24th Ed.Method No.3030K
21	Selenium as Se (mg/l), Max	<0.05	0.05	APHA 24th Ed.Method No.3030K
22	Nickel as Ni (mg/l), Max	<0.05	3.0	APHA 24th Ed.Method No.3030K
23	Cyanide as CN (mg/l), Max	<0.01	0.2	IS 3025 (P-27) Sec 1 2021
24	Fluoride as F (mg/l), Max	<0.1	2.0	APHA 24th Edition 4500F
25	Dissolved Phosphates as PO ₄ (mg/l), Max	<0.1	5.0	IS 3025 (P-31) Sec 1 2022
26	Sulphide as S (mg/l), Max	<0.01	2.0	IS 3025 (P-29) 2022
27	Phenolic Compounds as C ₆ H ₅ OH (mg/l), Max	<0.001	1.0	IS 3025 (P-43) Sec 1 2022
28	Manganese as Mn (mg/l), Max	<0.01	2	APHA 24th Ed.Method No.3030K
29	Iron as Fe (mg/l), Max	<0.05	3	APHA 24th Ed.Method No.3030K
30	Vanadium as V (mg/l), Max	<0.01	0.2	APHA 24th Ed.Method No.3030K
31	Nitrate Nitrogen (mg/l), Max	1.4	10	IS 3025 (P-34) 1988 RA 2019

END OF REPORT

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TEST REPORT

Table No.12

Name of the Client	: M/s. Minerals and Metals
Name of the Project	: Redl Iron Ore Mine
Location	: Redl village, Vengurla taluka, Sindhudurg dist, Maharashtra State.
Sample Collected by	: Environmental Laboratory (Unit of Mineral Engineering Services LLP)
Nature of Sample	: Surface Water
Sample Location	: SW1 - Kanyal tank water, SW2 - Nallah water Near Kanyalwadi SW3- Near Hanuman temple Kanyalwadi village
Date of sample collection	: 11.12.2025
Date of sample receipt	: 12.12.2025
Issue Date	: 03.01.2026
Ref : IS : 2296 Water Quality Standards	

Sl. No.	Report No	M007825122	M007925122	M008025122	Limits	Method of Testing
	Sample Code	SW1	SW2	SW3		
	Parameters	Results				
1	Colour (Hazen Units)	1	3	1	300	IS 3025 (Part 4) 2021
2	pH	6.94	6.70	6.55	6.5 to 8.5	IS 3025 (Part 11) 2022
3	Dissolved Oxygen (as O ₂), mg/l	5.80	5.70	5.80	Min 4	IS 3025 (Part 38):1989 RA 2019
4	Biochemical Oxygen Demand (as O ₂), mg/l	<3	<3	<3	Max 3	IS 3025 (Part 44) 2023
5	Total Coliform (MPN/100ml)	72	80	69	5000	IS 15165 2016 RA 2021
6	Total Dissolved Solids, (mg/l)	124	216	108	1500	IS 3025 (Part 16) 2023
7	Chloride (as Cl),mg/l	40.0	60.0	20.0	600	IS 3025 (Part 32) :1988 RA 2019
8	Sulphates as SO ₄ (mg/l)	28.0	50.0	18.0	400	APHA (24th Edition):4110B
9	Nitrates (as NO ₃),mg/l	2.00	4.00	1.20	50	IS 3025 (Part 34-Sect1) 2023
10	Fluoride (as F),mg/l	<0.1	<0.1	<0.1	1.5	IS 3025 (Part 60-Sect1) 2023
11	Copper (as Cu),mg/l	<0.0005	<0.0005	<0.0005	1.5	IS 3025 (Part 65) 2022
12	Iron (as Fe),mg/l	<0.005	<0.005	<0.005	50	IS 3025 (Part 65) 2022
13	Zinc (as Zn),mg/l	<0.005	<0.005	<0.005	15	IS 3025 (Part 65) 2022
14	Total Arsenic (as As), (mg/l)	<0.0005	<0.0005	<0.0005	0.2	IS 3025 (Part 65) 2022
15	Lead (as Pb), mg/l	<0.0005	<0.0005	<0.0005	0.1	IS 3025 (Part 65) 2022
16	Cadmium (as Cd), mg/l,	<0.0005	<0.0005	<0.0005	0.01	IS 3025 (Part 65) 2022
17	Hexavalent Chromium (as Cr ⁶⁺), mg/l	<0.03	<0.03	<0.03	0.05	IS 3025 (Part 52):2019 RA 2023
18	Selenium (as Se), mg/l	<0.0005	<0.0005	<0.0005	0.05	IS 3025 (Part 65) 2022
19	Cyanide (as CN), mg/l,	<0.01	<0.01	<0.01	0.05	IS 3025 (Part 27/Sec1) 2021
20	Phenolic compounds (as C ₆ H ₅ OH),mg/l	<0.001	<0.001	<0.001	0.005	IS 3025 (Part 43/Sec1) 2022
21	Anionic detergents (as MBAS),mg/l	<0.1	<0.1	<0.1	1.0	IS 3025 (Part 68) 2023

Note : Class-C: Drinking water with conventional treatment followed by disinfection.

"END OF REPORT"


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TEST REPORT

Table No. 13

Name of the Client		: M/s. Minerals and Metals		
Name of the Project		: Redi Iron Ore Mine		
Sample Location		: STP1 - Sewage Treatment Plant		
Date of sample collection		: 11.12.2025		
Date of sample receipt		: 12.12.2025		
Report no		: M008125122		
Issue Date		: 03.01.2026		
Ref		:Schedule -1 SI.No-2 of CTO		
Sample code		STP1		
Sl. No.	Parameters	Results	Standards	Method of Testing
1	pH	6.88	-	IS 3025 (P-11) 2022
2	Biochemical Oxygen Demand BOD ₅ 27 ^o C, mg/l	18	<30	IS 3025 (Part 44) 2023
3	Total Suspended Solids, at 105 ^o C, mg/l	24	<50	IS 3025 (P-17) 2022
4	Chemical Oxygen Demand (COD) (mg/l)	40	<100	IS 3025 (Part 58) 2023

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